

REMARKS/ARGUMENTS

Reconsideration of the application in view of the following remarks is respectfully requested.

Status of Claims

Claims 18-37 are pending in the application, with claims 18 and 33 being the only independent claims.

Overview of the Office Action

Claims 18-22 and 26-35 stand rejected under 35 U.S.C. §102(a) as anticipated by U.S. Patent No. 5,480,323 (*Mews*).

Claims 18, 23-25, 33 and 35-37 stand rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 5,575,679 (*Hammer*).

Summary of Subject Matter Disclosed in the Specification

The following descriptive details are based on the specification. They are provided only for the convenience of the Examiner as part of the discussion presented herein, and are not intended to argue limitations which are unclaimed.

The specification discloses a terminal (2) which has a housing (4) made of insulating material, and a slit blade insulation piercing connector (SBIPC) (11). The SBIPC (11) has a wire receiving slit (12) for receiving an insulated wire (20). The housing (4) has a longitudinal axis (17), a wire insertion side, and two spaced walls (9, 10). The walls (9, 10) define between them

a contact zone (3) open to the wire insertion side of the housing (4). See, e.g., Fig. 5; page 13, line 20 to page 14, line 5 of the specification.

A pair of grooves (13) of the housing (4) keep the SBIPC (11) in the contact zone (3) in an orientation that is generally perpendicular to the longitudinal axis (17), with the wire receiving slit (12) being open to the wire insertion side of the housing. See, e.g., Fig. 5; page 14, lines 1, 2, 8 and 9 of the specification. The housing (4) further has a first pair of opposite, rib-shaped projections (14) at each side of the SBIPC (11). Each first pair of projections (14) are positioned a distance from the SBIPC (11) along the longitudinal axis (17), project inward from the walls (9, 10), respectively, and define between them a wire inlet slot (15) which is open to the wire insertion side. See, e.g., Fig. 5; page 14, lines 12-22 of the specification. A color copy of Fig. 27 showing the distance between each pair of projections (14) and the SBIPC (11) is enclosed.

The walls (9, 10) in the region of the contact zone and the first pairs of projections (14) define a chamber having an essentially square cross section. Fig. 5; page 14, lines 19-23 of the specification. A color copy of Fig. 25 showing the chamber is enclosed.

The walls (9, 10) further define between themselves two groove-shaped extensions (16), each of which projects outward from its respective wire inlet slot (15) along the longitudinal axis (17), and is open to the wire insertion side. The width of each extension (16) is smaller or at most slightly larger than the outer diameter of the wire (20). Page 15, line 29 to page 16, line 1 of the specification.

At least one of the extensions (16) has a second pair of rib-shaped projections (22) near its distal end to define a wire reception slot (23). See Fig. 8.

The terminal (2) described above offers various advantages over the prior art, including the following.

First, the wire (20) connected to the SBIPC (11) is firmly gripped by the two pairs of projections (14). See Figs. 22, 24, 27 and 29. Thus, the wire (20) traversing the SBIPC (11) is firmly supported and held in a straight configuration by the projections (14) which are positioned at a distance from the wire receiving slit (12) of the SBIPC (11). This substantially stabilizes the electrical contact between the edges of the wire receiving slit (12) and the conductor of the wire (20). Whenever the wire (20) is subject to a force tending to lift the wire (20) out of the extensions (16), the projections (14) will ensure that the wire (20) in the chamber will not be moved or bent substantially thus impairing the electrical contact with the SBIPC (11).

Second, each of the two narrow, rib-like pressure surface portions (46, 47) of the pressure element (37) of an automatic line-laying system can be inserted into the wire receiving slit (12). Additionally, the two guide portions (48, 49) of the pressure element (37) can be inserted into the respective wire inlet slots (15). See color copy of Fig. 25; page 22, lines 26-31 of the specification. As a result, the pressure element (37), upon dipping into the extension (16) and the chamber having an essentially square cross section, can provide precisely aligned guiding and positioning of the wire (20) with respect to the wire receiving slit (12) and the wire inlet slots (15).

Third, the claimed arrangement makes it possible to use the pressure element (37) which eliminates the need for using a line-laying finger (31) to push the wire (20) into the terminal (2). As a result, it is the only outer diameter of the wire (20) that determines dimensions of the terminal (2), including the width of extension (16), and accordingly such dimensions can be

designed without considering the size of the line-laying finger (31). See page 22, lines 11-25 of the specification.

Arguments

Independent Claim 18

Applicants respectfully submit that claim 18 is not anticipated by *Mews* or *Hammer* because neither *Mews* nor *Hammer* discloses, either expressly or inherently, each and every element as set forth in claim 18.

In particular, neither *Mews* nor *Hammer* teaches or suggests that a first pair of rib-shaped projections are positioned a distance from the SBIPC. Neither the two pairs of rib-shaped projections (8) in *Mews* nor the two pairs of rib-shaped projections (9) in *Hammer* are positioned a distance from the SBIPC. On the contrary, they are positioned immediately next to the SBIPC because they form between themselves the SBIPC receiving channel. See, e.g., col. 3, lines 60-65 and Figs. 1 and 4 of *Mews*; col. 3, lines 29-35 and Figs. 1 and 3 of *Hammer*. A color copy of Fig. 4 of *Mews* showing this feature is enclosed.

In sharp contrast, claim 18 of the present application specifically recites that a first pair of rib-shaped projections are positioned a distance from the SBIPC.

In addition, neither *Mews* nor *Hammer* teaches or suggests a groove-shaped extension, the width of which is smaller or at most slightly larger than the outer diameter of an insulated wire, as recited in claim 18. The Examiner does not point out exactly where in *Mews* and *Hammer* such a feature exists. *Mews* and *Hammer* are actually silent on such a feature. If the Examiner remains of a contrary view, then he is respectfully requested to point out exactly where in *Mews* or *Hammer* support for such a view exists.

Furthermore, neither *Mews* nor *Hammer* teaches or suggests a second pair of rib-shaped projections near the distal end of the extension, as recited in claim 18. The Examiner contends that *Mews* has a second pair of projections (8) at the distal end of the extension (17), and that *Hammer* similarly has a second pair of projections (9) at the distal end of the extension (20, 21), but the Examiner fails to point out exactly where in *Mews* and *Hammer* such second pair of projections exist. *Mews* and *Hammer* are silent on such a feature. See, e.g., Figs. 1 and 4 of *Mews*; Figs. 1-3 and 5 of *Hammer*.

In view of these differences, withdrawal of the §102(a) rejection of claim 18 as anticipated by *Mews* and the §102(e) rejection of claim 18 as anticipated by *Hammer* are respectfully requested.

Moreover, the above-discussed fundamental differences between the claimed invention and the prior art of record render claim 18 clearly unobvious thereover under 35 USC §103.

Dependent Claims 19-32

Each of claims 19-32 depends, directly or indirectly, from independent claim 18, and as such benefits from its allowability.

In addition, these claims include additional limitations which serve to even more clearly distinguish the claimed invention over the prior art of record. For example, *Hammer* does not teach or suggest a frangible closing-wall, and an openable closing means, as recited in claims 24 and 25, respectively.

The Examiner refers to Fig. 3 of *Hammer* and contends that a side wall of the covering cap (44) of *Hammer* closes off the distal end of the extension (20). However, the covering cap (44) does not close off the distal end of the extension (20) at all because there is a space between

the covering cap (44) and the distal end of the extension (22). This space is clearly shown in Figs. 3 and 5 of *Hammer*. Additionally, *Hammer* is silent on whether the covering cap (44) is frangible or openable.

Independent Claim 33

Independent claim 33 is patentable for reasons discussed above with respect to the patentability of independent claim 18, as well as for additional reasons.

In particular, neither *Mews* nor *Hammer* teaches or suggests that first pairs of rib-shaped projections (each pair is positioned a distance from a SBIPC) and two spaced walls define a chamber which has an essentially square cross section, as recited in claim 33. The Examiner fails to address this feature in the Office Action. As discussed earlier, the two pairs of projections (8, 9) of *Mews* or *Hammer* are positioned immediately next to a SBIPC. As such, they and the two spaced walls (6, 8) do not and cannot define a chamber having an essentially square cross section. This feature is highly advantageous because the essentially square cross section functions in cooperation with the pressure element (37), upon its being dipped into the extension (16) and the chamber, to provide precisely aligned guiding and positioning of the wire (20) with respect to the wire receiving slit (12) and the wire inlet slots (15).

In view of the foregoing, withdrawal of the §102(a) rejection of claim 33 as anticipated by *Mews* and the §102(e) rejection of claim 33 as anticipated by *Hammer* are respectfully requested.

Dependent Claims 34-37

Each of claims 34-37 depends, directly or indirectly, from independent claim 33, and as such benefits from its allowability.

In addition, these claims include additional limitations which serve to even more clearly distinguish the claimed invention over the prior art of record. For example, *Mews* does not teach or suggest that a wire inlet slot has a width less than the outer diameter of the wire, as recited in claim 34. *Mews* is silent on such a feature. If the Examiner remains of a contrary view, then he is respectfully requested to point out exactly where in *Mews* support for such a view exists.

In addition, as discussed above, *Hammer* does not teach or suggest a frangible closing-wall, as recited in claim 36.

Moreover, *Hammer* does not teach or suggest two swingable doors, as recited in claim 37. The Examiner fails to address this feature in the Office Action.

Conclusion

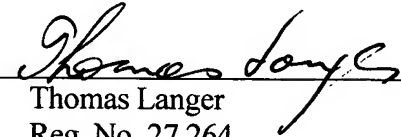
Based on all of the above, it is respectfully submitted that the present application is now in proper condition for allowance. Prompt and favorable action to this effect and early passing of this application to issue are respectfully solicited.

Should the Examiner have any comments, questions, suggestions or objections, the Examiner is respectfully requested to telephone the undersigned in order to facilitate reaching a resolution of any outstanding issues.

It is believed that no fees or charges are required at this time in connection with the application; however, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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